

Remarks

Applicants respectfully request that this Amendment After Final Action be admitted under 37 C.F.R. § 1.116.

Applicants submit that this Amendment presents claims in better form for consideration on appeal. Furthermore, applicants believe that consideration of this Amendment could lead to favorable action that would remove one or more issues for appeal.

Claims 1, 3, 6, 8-11, 16 and 22 have been amended. Claim 2 has been canceled. Therefore, claims 1, 3-11 and 16-22 are now presented for examination.

Claims 7 and 10 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants submit that this rejection has been obviated by the amendment of the claims.

Various claims have been objected to because of informalities. Applicants submit that the claims have been amended to appear in proper form for allowance.

Claims 1-7, 9 and 11 stand rejected under 35 U.S.C. §102(b) as being anticipated by Barenys et al. (U.S. Patent No. 6,145,036). Applicants submit that the present claims are patentable over Barenys.

Barenys discloses an expansion processor that resides on a primary I²C bus, which includes a primary SDA and a primary SCL. The expansion processor may be an I²C slave responding to requests from an I²C bus master residing on a primary I²C bus. A bus master on a primary bus may initiate requests for an I²C transaction (either a read or a write) to a plurality of expansion devices. These expansion devices may include any I²C compatible device, and may include, but are not necessarily limited to, microprocessors, gate arrays, liquid crystal display (LCD) drivers, memory, data converters, network drivers/adapters, and application oriented devices. See Barenys at col. 3, ll. 11-30.

Barenys further discloses that the expansion processor may be implemented in a memory chip having the expansion processor connected to a primary bus. The memory chip contains a plurality of memory modules (e.g., DIMMs). Each of these DIMMs is connected by an I²C sub-bus to the expansion processor. If a DIMM fails, only its particular sub-bus will fail, resulting in the other sub-buses not failing and correspondingly, no failure in the primary bus 203 (col. 3, ll. 40-62).

Claim 1 of the present application recites a communication link to transmit signals received from a central management agent indicating failure of one or more of a first set of field replaceable units. Applicants submit that nowhere in Barenys is there disclosed a communication link to transmit signals received from a central management agent indicating failure of one or more of a first set of field replaceable units. Barenys discloses a failing DIMM. However, there is no disclosure of transmitting a signal indicating that a DIMM has failed. Therefore, claim 1 is patentable over Barenys.

Claims 2-5 depend from claim 1 and include additional features. Thus, claims 2-5 are also patentable over Barenys.

Claim 6 recites a central management agent to monitor and transmit signals to each of a first set of field replaceable units and a second set of field replaceable units, and to transmit signals to control activation of the first set of field replaceable units based upon signals received from the second set of field replaceable units. Applicants submit that Barenys does not disclose transmitting signals to control activation of a first set of field replaceable units based upon signals received from a second set of field replaceable units. Thus, claim 6 is patentable over Barenys. Since claims 7-11 depend from claim 6 and include additional features, claims 7-11 are also patentable over Barenys.

Claim 16 recites a central management agent to monitor temperature sensors and fan trays, and to transmit signals to control activation of one or more of the fan trays based upon signals received from one or more of the temperature sensors. For the reasons described above with respect to claim 6, claim 16 is also patentable over Barenys.

Because claims 17-22 depend from claim 16 and include additional features, claims 17-22 are also patentable over Barenys.

Claims 16-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by Larson et al. (U.S. Pub. No. 2003/0033547). Applicants submit that the present claims are patentable over Larson '547.

Larson '547 discloses a server system including a plurality of subsystems including an associated memory for storing power usage information. A power supply unit is coupled to the plurality of subsystems to provide power to the plurality of subsystems. A server management card is coupled to the plurality of subsystems, and is configured to retrieve the power usage information from the memory of each subsystem. The server management card is configured to calculate the total power usage of the plurality of subsystems based on the retrieved power usage information. See Larson '547 at paragraph [0004].

In addition, the server system includes six chassis fans, a temperature sensor to monitor the chassis temperature, and fan sensors to monitor the six fans. The fan sensors indicate whether a fan is rotating and the fan's speed setting. Fan controllers control the speed of fans by a PWM (pulse width modulation) signal via output lines. If a fan stalls, the monitor line of that fan indicates this condition to a FPGA, and an alarm event is generated. The speed of fans is varied to maintain an optimum operating temperature versus fan noise within system. If the chassis temperature sensed by temperature sensor reaches or exceeds a temperature alarm threshold, an alarm event is generated. When the temperature reduces below the alarm threshold, the alarm event is cleared. If the temperature reaches or exceeds a temperature critical threshold, the physical integrity of the components within system are considered to be at risk, and a SMC performs a system shut-down, and all cards are powered down except. When the chassis temperature falls below the critical threshold and has reached the alarm threshold, the SMC restores the

power to all of the cards that were powered down when the critical threshold was reached (paragraph [0050]).

Nevertheless, there is no disclosure in Larson '547 of a communication link to transmit signals received from a central management agent indicating failure of one or more of a first set of field replaceable units, as recited in claim 1. In addition, Larson '547 fails to disclose transmitting signals to control activation of a first set of field replaceable units based upon signals received from a second set of field replaceable units, as recited in claim 6. Further, Larson '547 does not disclose a central management agent to monitor temperature sensors and fan trays, and to transmit signals to control activation of one or more of the fan trays based upon signals received from one or more of the temperature sensors, as recited in claim 16. Accordingly, the present claims are patentable over Larson '547.

Claims 16-19 stand rejected under 35 U.S.C. §102(e) as being anticipated by Larson et al. (U.S. Pub. No. 2003/0037193). Applicants submit that the present claims are patentable over Larson '193.

Larson '193 discloses a method and apparatus that controls fans and power supplies to provide accelerated run-in testing. By modulating fans to increase case temperatures and adjusting power supplies to provide "worst case" voltages, a computer system can be subjected to run-in tests under taxing conditions. By alternately cooling and heating devices such as CPUs, devices can be subjected to mechanical stresses associated with power-on/power off cycles. See Larson '193 at Abstract. Larson '193 also discloses that after a temperature is allowed to climb to a temp1 fans are turned on to normal speed (paragraph [0027]).

Applicant submits that Larson '193 does not disclose a communication link to transmit signals received from a central management agent indicating failure of one or more of a first set of field replaceable units, as recited in claim 1. Moreover, Larson '193 does not disclose a first management bus, coupled to a first set of field replaceable units,

to couple only to field replaceable units having the first type and a second management bus, coupled to the second set of field replaceable units, to couple only to field replaceable units having the second type, as recited in claim 6. Similarly, Larson '193 does not disclose a first management bus coupled to the two or more temperature sensors and a second management bus coupled to the two or more fan trays, as recited in claim 16. Therefore, the present claims are patentable over Larson '547.

Claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Barenys et al. (U.S. Patent No. 6,145,036) in view of Larson '547. Applicants submit that the present claims are patentable over Barenys in view of Larson '547.

As described above, both Barenys and Larson '547 fail to disclose or suggest a communication link to transmit signals received from a central management agent indicating failure of one or more of a first set of field replaceable units, transmitting signals to control activation of a first set of field replaceable units based upon signals received from a second set of field replaceable units, or a central management agent to transmit signals to control activation of one or more of the fan trays based upon signals received from one or more of the temperature sensors. Therefore, any combination of Barenys and Larson '547 would also fail to disclose or suggest such features.

Accordingly, the present claims are patentable over Barenys in view of Larson '547.

Claim 10 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Barenys, in view of Emberty et al. (U.S. Patent No. 2002/0120367). Applicants submit that the present claims are patentable over the combination of Barenys and Emberty.

Emberty discloses a fan controller for use with a variable speed fan. The fan controller includes a processor coupled to a communication circuit that, in an advantageous embodiment, includes a universal asynchronous receiver transmitter (UART). The communication circuit allows an external controller to monitor and establish a desired speed setting of the variable speed fan. The fan controller also includes a memory device, such as an electrically erasable programmable read only

memory (EEPROM), coupled to the processor that contains the desired speed setting of the variable speed fan. The fan controller further includes a feedback circuit, coupled to the processor, that receives a feedback signal indicative of the variable speed fan operation and a fan driver circuit, coupled to the processor that provides a driving signal to control a speed of the variable speed fan. See Emberty at Abstract.

However, Emberty does not disclose or suggest a communication link to transmit signals received from a central management agent indicating failure of one or more of a first set of field replaceable units, transmitting signals to control activation of a first set of field replaceable units based upon signals received from a second set of field replaceable units, or a central management agent to transmit signals to control activation of one or more of the fan trays based upon signals received from one or more of the temperature sensors. As discussed above, Barenys does not disclose or suggest such features. Therefore, any combination of Barenys and Emberty would also fail to disclose or suggest the features. As a result, the present claims are patentable over Barenys in view of Emberty.

Claim 21 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Larson '547, in view of Carlson et al., applied in the previous office action.

Applicants submit that the present claims are patentable over the combination of Larson '547 and Carlson.

Carlson discloses a method and apparatus for reducing the overhead required in conventional fault tolerant processing by redundant processors. See Carlson at Abstract. Nonetheless, Carlson does not disclose or suggest a communication link to transmit signals received from a central management agent indicating failure of one or more of a first set of field replaceable units, transmitting signals to control activation of a first set of field replaceable units based upon signals received from a second set of field replaceable units, or a central management agent to transmit signals to control activation of one or more of the fan trays based upon signals received from one or more of the temperature

sensors. As discussed above, Larson '547 does not disclose or suggest such features. Therefore, any combination of Carlson and Larson '547 would also not disclose or suggest the above features. As a result, the present claims are patentable over the combination of Larson '547 and Carlson.

Applicant respectfully submits that the rejections have been overcome, and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
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